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**CRYPTOGRAPHIC METHODS AND APPARATUS USING WORD-WISE  
MONTGOMERY MULTIPLICATION**

**ABSTRACT**

5        Cryptographic methods and apparatus are provided for determination  
of multiplicative inverses. A Montgomery radix is selected based on a  
wordsize, permitting word-wise Montgomery multiplication. Using word-  
wise Montgomery multiplication, methods and apparatus determine various  
multiplicative inverses with reduced computation time.

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